

The opinion in support of the decision being entered today was **not** written
for publication in a law journal and is **not** binding precedent of the Board.

Paper No. 42

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte Kevin C. Spencer

Appeal No. 97-1727
Application No. 08/378,091

HEARD
August 15, 2000

Before Garris, Owens, and Lieberman, Administrative Patent Judges.

Lieberman, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 89 through 104, and 106 through 112, as amended subsequent to the final rejection, which are all of the claims pending in this application.

BACKGROUND

The invention is directed to a method for enhancing pectinase activity by injecting

an inert gas selected from the group consisting of argon, neon, krypton, xenon or a mixture thereof into fruit or fruit juice. At least 50% of full gas saturation of the fruit or fruit juice is maintained during the enzymatic process. It is required that a temperature of 10 to 30°C and a pressure of less than 10 atmospheres be maintained during the enzymatic process

THE CLAIMS

Claims 112 is illustrative of appellants' invention and is reproduced below.

112. A method for enhancing pectinase activity in an enzymatic process using at least one enzyme having pectinase activity, which comprises:

- a) injecting a gas into a fruit juice containing at least one enzyme having pectinase activity, the gas consisting essentially of argon, neon krypton, xenon or a mixture thereof;
- b) saturating the fruit or fruit juice with the gas to an extent of at least 50% of full saturation of said fruit or fruit juice with said gas; and
- c) maintaining the saturation substantially throughout the fruit or fruit juice, and during said enzymatic process at a temperature of from 10 to 30°C and at a pressure of less than 10 atm.

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references.

Bagdigian	2,569,217	Sept. 25, 1951
Seebeck et al. (Seebeck)	4,329,433	May 11, 1982
Powrie et al. (Powrie)	4,895,729	Jan. 23, 1990
Fath et al. (Fath)	5,128,160	Jul. 07, 1992

G. F. Doebbler et al., (Doebbler) "Inert Gas Interactions and Effects on Enzymatically Active Proteins," 26 Federation Proceedings, p.650, no.2, (Mar.-Apr. 1967).

THE REJECTIONS

Claims 89 through 104 and 106 through 112 stand rejected under 35 U.S.C.

§ 112, first paragraph, as the specification as originally filed does not provide support for the invention as now claimed.

Claims 89 through 104 and 106 through 112 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 89 through 104 and 106 through 112 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fath, and Powrie in view of Bagdigian, Doebbler and Seebeck.

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the aforementioned rejections under 35 U.S.C.

§ 112 and 35 U.S.C. § 103 are not well founded. Accordingly, we do not sustain these rejections.

The Rejections under Section 112

Any analysis of the claims for compliance with 35 U.S.C. § 112 should start with the second paragraph, then proceed with the first paragraph. *In re Angstadt*, 537 F.2d 498, 501, 190 USPQ 214, 217 (CCPA 1976); *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238, (CCPA 1971).

"The legal standard for definiteness under the second paragraph of 35 U.S.C. § 112 is whether a claim reasonably apprises those of ordinary skill in the art of its scope." *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). The inquiry is to determine whether the claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity. The definiteness of the language employed in a claim must be analyzed not in a vacuum, but in light of the teachings of the particular application. *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971).

Accordingly, it is incumbent upon the examiner, in the first instance, to demonstrate that one of ordinary skill in the art would not understand the scope of the claim when the claim language is read in light of the specification and the state of the prior art. In the present case, the examiner has not satisfied this burden. It is the examiner's position that the phrase, "maintaining the saturation substantially throughout" is indefinite as use of this phrase does not clearly set forth the limits of the claims. See Answer, page 4. While the examiner noted in the Answer that appellant's principal Brief did not advance an argument against the section 112 rejections, Answer, page 7, appellant has responded by submitting an argument at pages 1 and 2 of the Reply Brief. It is appellants' position that support for the criticized language can be found at pages 16 and 17 of the present specification.

Our review of appellants' specification, particularly the description on page 16, line 6 through page 17, line 16 brings us into agreement with the appellant that the claimed language, "maintaining the saturation substantially throughout" is described in such a manner that the specification provides a reasonable standard for understanding the metes and bounds of the term, *supra* when the claim is read in light of the specification. *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826, 221 USPQ 568, 573-574 (Fed. Cir. 1983). Accordingly, we reverse the rejection of the examiner.

We turn next to the examiner's rejection under the first paragraph of 35 U.S.C.

§ 112 on the grounds of lack of enablement. In a rejection under the first paragraph of 35 U.S.C. § 112, paragraph one, it is sufficient if the originally filed disclosure would have conveyed to one of ordinary skill in the art that an appellant had possession of the concept of what is claimed. *In re Anderson*, 471 F.2d 1237, 1240-41, 176 USPQ 331, 333 (CCPA 1973). There is no requirement that the language of the claimed subject matter be present in the specification in *ipsissima verba*. It is the examiner's position that appellants do not teach "substantially." We disagree.

The examiner's rejection does not go beyond that stated *supra*. However we previously determined that the specification, page 16, line 6 to page 17, line 16, uses the term, "substantially" and provides an adequate explanation such that one of ordinary skill in the art would understand the scope of the term when read in light of the specification.

Based upon the above consideration, we conclude that appellants in their

originally filed disclosure had possession of the concepts set forth in the claimed subject matter. Accordingly, we reverse the rejection of the examiner.

The Rejection under 35 U.S.C. § 103

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a ***prima facie*** case of unpatentability,” whether on the grounds of anticipation or obviousness. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

On the record before us, the examiner relies upon a combination of five references to reject the claimed subject matter and establish a ***prima facie*** case of obviousness. The basic premise of the examiner’s rejection is that it would have been obvious to one of ordinary skill in the art to saturate the food system with gas as taught by Bagdigian, use any inert gas as taught by Doebbler, and inject the gas as taught by Seebeck in the process of Fath or Powrie because the saturation of enzyme containing systems with all inert gas containing mixtures is conventional in the food art. See Answer, page 6. We disagree. We find that Bagdigian is directed to certain types of foods such as coffee, popcorn, potato chips, peanut butter, and foods which have a tendency to deteriorate in packages. See column 1, lines 22-25 and column 2, lines 20-23. There is no mention in Bagdigian of either fruits or fruit juices. Nor can we conclude that packaging food in a “chamber saturated with the desired gas,” column 1, lines 40-41, would necessarily result in meeting the requirement of the claimed subject matter that the fruit and fruit juice be saturated “substantially throughout.” Accordingly, we determine that there is no suggestion or teaching in Bagdigian to utilize inert gases in a chamber for the purpose of saturating fruit or fruit juice.

As to Doeblbler, there is no indication that inhibiting effects observed on five specific enzymes studied, would apply to pectinase enzyme activity as required by the claimed subject matter, particularly as the enzymes disclosed in Doeblbler do not include the claimed enzyme. Furthermore, the inert gases disclosed by Doeblbler are not limited to the claimed noble gases argon, neon, krypton and xenon, but include N₂O and SF₆. Based on the disclosure of Doeblbler, there is no reason to select either the requisite enzyme or gas.

Accordingly, the examiner has not established a *prima facie* case of obviousness and the examiner's rejection of claims 89 through 104 and 106 through 112 as unpatentable over Fath, and Powrie in view of Bagdigian, Doeblbler and Seebeck are not sustained.

The examiner must show reasons that the skilled artisan confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. We determine on the record before us that there is no reason, suggestion, or motivation to combine the references in the manner proposed by the examiner. Accordingly, the examiner has not established a *prima facie* case of obviousness. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

Since no *prima facie* case of obviousness has been established, we need not address the experimental results relied upon by appellants. See Brief, page 8. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

DECISION

The rejection of claims 89 through 104 and 106 through 112 under 35 U.S.C.

§ 112, first paragraph, as the specification as originally filed does not provide support for the invention as now claimed is reversed.

The rejection of claims 89 through 104 and 106 through 112 under 35 U.S.C.

§ 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is reversed.

The rejection of claims 89 through 104 and 106 through 112 under 35 U.S.C.

§ 103 as being unpatentable over Fath, and Powrie in view of Bagdigian, Doebller and Seebeck is reversed.

The decision of the examiner is reversed.

REVERSED

BRADLEY R. GARRIS
Administrative Patent Judge

)
)
)
)
)
)
) BOARD OF PATENT

) APPEALS
) AND
) INTERFERENCES
)
)
)
)
)

PAUL LIEBERMAN
Administrative Patent Judge

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT
1775 JEFFERSON DAVIS HIGHWAY
FOURTH FLOOR
ARLINGTON, VA 22202